

Amendments to the Claims:

1. (Currently amended) Apparatus for converting power from a power input to an output power supply, the apparatus comprising:

a resonance converter, the resonance converter comprising at least two serial coupled semiconductor switches, wherein:

the semiconductor switches comprise at least one common output terminal, the one common output terminal is connected to at least one first coil,

the first coil is connected to a second coil,

the second coil is connected to a first capacitor,

the first second coil is part of a transformer,

the transformer comprises a second third coil connected to rectifier means, the rectifier means has its output connected to output terminals,

a first feedback circuit connects one of the output terminals to an error amplifier,

the error amplifier is connected to a first input terminal of a control circuit,

the control circuit comprises an output that is connected over driver means to an input of the semiconductor switches,

a second feedback circuit, the second feedback circuit comprises at least one second capacitor connected to a second input terminal of the control circuit,

the second feedback circuit is connected to a capacitive divider including a third capacitor and a fourth capacitor in series, the fourth capacitor is connected to common ground and the third capacitor is connected to the first capacitor, wherein the midpoint of the capacitive divider is connected to a further capacitor and resistor in parallel connected to the second feedback circuit, and the second feedback circuit transmits a feedback signal from the first capacitor,

the first capacitor is serially connected to the first second coil and to ground,

~~the second feedback circuit is connected to a second input terminal of the control circuit~~,

~~the second input terminal is connected to at least one second capacitor~~,

the second capacitor controls a switching frequency of the semiconductor switches,

the second feedback circuit transmits the feedback signal depending on an actual change of charge of the first capacitor in each half period of switching of the first capacitor, and

the feedback signal linearizes the influence of the first feedback circuit.

2. (Cancelled)

3. (Currently amended) Apparatus according to claim 1 for converting power from a power input to an output power supply, the apparatus comprising:

a resonance converter, the resonance converter comprising at least two serial coupled semiconductor switches, wherein:

the semiconductor switches comprise at least one common output terminal, the one common output terminal is connected to at least one first coil,

the first coil is connected to a second coil,

the second coil is connected to a first capacitor,

the second coil is part of a transformer,

the transformer comprises a third coil connected to rectifier means, the rectifier means has its output connected to output terminals,

a first feedback circuit connects one of the output terminals to an error amplifier,

the error amplifier is connected to a first input terminal of a control circuit,

the control circuit comprises an output that is connected over driver means to an input of the semiconductor switches,

a second feedback circuit, wherein the second feedback circuit comprises at least one second capacitor connected to a second input terminal of the control circuit,

wherein the second feedback circuit comprises an inverting amplifier, and an output of the inverting amplifier is connected to the second input terminal through a capacitor of the at least one second capacitor.

4. (Currently amended) Apparatus according to claim 3, wherein the output from the inverting amplifier is connected to a serial connection of a second resistor and a further fifth

capacitor of the at least one second to a sixth capacitor, which is connected to common ground, and the serial connection of the second resistor and the fifth capacitor is coupled in parallel to the capacitor and the further capacitor of the at least one second capacitor.

5. (Cancelled)